Claim Amendments:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of configuring a data network, the method comprising:
determining an average peak bandwidth per user value for the data network;
determining a capacity of a communication link connecting a digital subscriber line access multiplexer (DSLAM) and an asynchronous transfer mode (ATM) switch;
determining a data transmission slowdown indicator that includes a slowdown amount and a probability of experiencing a slowdown event;
determining an estimated maximum number of users of digital subscriber lines that may be supported by the DSLAM, where the estimated maximum number of users of digital subscriber lines is based on the average peak bandwidth per user value, the capacity of the communication link, and the customer data transmission slowdown indicator; and
configuring the data network such that the DSLAM has a configured number of users of digital subscriber lines that is less than or equal to the estimated maximum number of users of digital subscriber lines.

2. (Original) The method of claim 1, wherein the estimated maximum number of users of digital subscriber lines is further based on a probability of a random user downloading data at a given period of time.

3. (Original) The method of claim 1, wherein the estimated maximum number of users of digital subscriber lines is further based on an Erlang model calculation.

4. (Currently Amended) The method of claim 1, wherein the communication link is one or more Digital Signal-level 3 (DS3) type communication links or an [[(]]Optical Carrier-level 3 (OC3) type communication link.

5. (Previously Presented) The method of claim 1, wherein the estimated maximum number of users of digital subscriber lines is calculated with an assumption of a data transfer speed associated with a plurality of users.

6. (Original) The method of claim 5, wherein the data transfer speed is about 1.5 Mbits/second.

7. (Previously Presented) A method of configuring a data network, the method comprising:

determining an average peak bandwidth per user value for the data network;

determining a capacity of a communication link connecting a remote terminal (RT) to asynchronous transfer mode (ATM) switch via an optical concentrator device;

determining a data transmission slowdown indicator that includes a slowdown amount and a probability of experiencing a slowdown event;

determining an estimated maximum number of users that may be supported by the RT, where the estimated maximum number of users is based on the average peak bandwidth per user value, the capacity of the communication link, and the data transmission slowdown indicator; and

configuring the data network such that the RT has a configured number of users of subscriber lines that is less than or equal to the estimated maximum number of users that may be supported by the RT.

8. (Original) The method of claim 7, wherein the communication link comprises a plurality of T1 transmission lines.

9. (Previously Presented)The method of claim 7, wherein the communication link comprises one of an Optical Carrier-level 3 (OC3) and one or more Digital Signal-level 3 (DS3) links.

10. (Currently Amended) A data communications system comprising:

a plurality of digital subscriber lines;

a digital subscriber line multiplexer coupled to each of the plurality of digital subscriber lines; and

a data switch coupled to the digital subscriber line multiplexer via a communication link;

wherein the data communications system is configured such that the number of digital subscriber line users supported by the digital subscriber line multiplexer is determined based on an estimated maximum number of users, the estimated maximum number of users determined based on an average peak bandwidth per user value, a data communication capacity of the communication link, and a data transmission slowdown indicator, the data transmission slowdown indicator comprising a slowdown amount and a probability of experiencing a slowdown event.

11. (Currently Amended) A data communications system comprising:

a plurality of digital subscriber lines;

a remote terminal device coupled to each of the plurality of digital subscriber lines; and

a data switch coupled to the remote terminal device via a communication link;

wherein the data communications system is configured such that the number of digital subscriber line users supported by the remote terminal device is determined based on an estimated maximum number of users, the estimated maximum number of users determined based on an average peak bandwidth per user value, a data communication capacity of the communication link, and a data transmission slowdown indicator, the data transmission slowdown indicator comprising a slowdown amount and a probability of experiencing a slowdown event.

12. (Original) The system of claim 11, wherein the estimated maximum number of users of digital subscriber lines is further based on a probability of a random user downloading data at a given period of time.

13. (Original) The system of claim 11, wherein the estimated maximum number of users of digital subscriber lines is further based on an Erlang model calculation.

14. (Previously Presented) The system of claim 11, wherein the communication link is one or more Digital Signal-level 3 (DS3) type communication links, an Optical Communication Level 3 (OC3) type communication link, or one or more T1 type communication links.

15. (Previously Presented) The system of claim 11, wherein the estimated maximum number of users of digital subscriber lines is calculated with an assumption of a data transfer speed associated with a plurality of users.

16. (Original) The system of claim 15, wherein the data transfer speed is about 1.5 Mbits/second.